

ABSTRACT OF THE DISCLOSURE

One or more techniques are provided for gating the acquisition or selection of image data based upon the respiration of a patient. The technique provides for the acquisition of respiratory motion data from the image system or from one or more sensor-based motion determination systems. Various attributes of respiratory motion may be derived from the respiratory motion data and motion thresholds determined from the attributes. Based upon the respiratory motion of the patient and the determined thresholds, image data may be acquired or selected which corresponds to one or more breath-holds by the patient or low respiratory motion quiet periods within the breath-holds. The technique may be implemented in a fully automated or operator assisted or supervised manner.